

CLAIMS

1. A steering mechanism for an automotive vehicle comprising:
 - a pinion having a shaft section and a gear section, the gear section being located toward an end of the pinion;
 - a rack having a gear section coupled with the gear section of the pinion;
 - a housing enclosing at least portions of the pinion and the rack;
 - a bushing rotatably received within the housing, the bushing being rotatable to position the pinion with respect to the rack casing in a first position and a second position, the first position locating the gear section of the pinion a first distance relative to the rack, the second position locating the gear section of the pinion a second distance relative to the rack, the bushing defining a first end and a second end, the second end being adjacent the end of the pinion; and
 - a nut engaged with the bushing to inhibit rotational movement of the bushing with respect to the housing, the nut located adjacent to the first end of the bushing.
2. A steering mechanism as in claim 1, the nut having a threaded inner surface, and the bushing having a threaded outer surface configured to engage the threaded inner surface.

3. A steering mechanism as in claim 2, wherein the pinion is received by the nut.

4. A steering mechanism as in claim 1, wherein the nut is coupled with the housing.

5. A steering mechanism as in claim 4, the nut and the housing are coupled via a press-fit coupling.

6. A steering mechanism as in claim 5, the nut including a flange configured to apply a force to the housing, wherein the force is substantially perpendicular to the pinion outer wall.

7. A steering mechanism as in claim 1, the housing being substantially cylindrical.

8. A steering mechanism as in claim 1, further comprising a retainer located adjacent to the second end of the bushing, the retainer configured to prevent axial movement between the bushing and the housing.

9. A steering mechanism as in claim 8, wherein the retainer is a ring-shaped retainer coupled with the bushing, and the ring-shaped retainer contacts a surface of the housing.

10. A steering mechanism as in claim 1, the bushing having a body section with a first diameter and a collar section with a second diameter larger than the first diameter, the nut positioned adjacent to the collar section.

11. A steering mechanism as in claim 1, wherein the nut is a lock-nut.

12. A steering mechanism as in claim 1, wherein the bushing has an inner wall, an outer wall, and a radius, the inner wall and outer wall defining the bushing thickness, the bushing thickness varying along the bushing radius.

13. A steering mechanism as in claim 1, further including a first bearing assembly rotatably coupling the pinion and the bushing.

14. A steering mechanism as in claim 13, further including a second bearing assembly rotatably coupling the pinion and the bushing, the first bearing assembly located adjacent to the bushing first end, the second bearing assembly located adjacent to the bushing second end.